



# Memorandum

**TO:** TRANSPORTATION AND  
ENVIRONMENT COMMITTEE

**FROM:** Katy Allen

**SUBJECT: STATUS REPORT ON DEFERRED  
MAINTENANCE AND  
INFRASTRUCTURE BACKLOG**

**DATE:** 04-21-10

Approved

Date

4/23/10

**COUNCIL DISTRICT:** City-Wide

**SUBJECT: STATUS REPORT ON DEFERRED MAINTENANCE AND  
INFRASTRUCTURE BACKLOG**

## **RECOMMENDATION**

Accept status report on the City's Deferred Maintenance and Infrastructure backlog.

## **OUTCOME**

This report is intended to facilitate Committee discussion of the City's Deferred Maintenance and Infrastructure backlog needs within the context of the Proposed 2010-2011 Budget.

## **EXECUTIVE SUMMARY**

This staff report provides an update on the City's Deferred Maintenance and Infrastructure, as well as discusses near term strategies being employed in an effort to minimize certain further increases to the backlog due to impacts from the current economic conditions.

Overall, with the City's upcoming Proposed 2010-2011 Budget, the Deferred Maintenance and Infrastructure backlog will total roughly \$788 million in one-time costs (\$446 million in the General Fund), with an additional \$45 million needed annually (\$43 million in the General Fund) in order to maintain the City's infrastructure in a sustained functional condition (see Attachment A).

At the Committee meeting, staff will be making a presentation that will give context for the impacts of the proposed budget on various infrastructure elements, but will also introduce potential strategies for discussion. Specifically, to turn around the serious downhill trend of the City's Transportation Infrastructure, staff will introduce ideas of achieving sustainable financing through such methods as a bond or a Pavement User's Fee.

## **BACKGROUND**

In October 2007, a comprehensive report on the City's Deferred Maintenance and Infrastructure backlog was presented to the Transportation and Environment Committee and then to the full City Council in a special Study Session. This report analyzed the unfunded infrastructure and ongoing maintenance needs over a 5 year period for 13 discrete programs in the City. The report identified a one time unfunded need of \$915 million and an ongoing unfunded need of \$45 million.

The backlog cost estimates were updated in October 2008 as part of the Structural Deficit Elimination Plan efforts, to reflect the Adopted 2008-2009 budget. The one time needs were revised to \$825 million (General Fund need-\$457 million) and the ongoing needs at \$41 million attributable to the exclusion of street tree, sidewalk, and curb and gutter maintenance, based on property owners' responsibility for these expenses.

On June 16, 2009 at the request of the Rules Committee, the City Manager brought forward to City Council a memorandum on the status of the Deferred Infrastructure and Maintenance Needs addressing what effect the Proposed 2009-2010 Budget have on the infrastructure backlog any specific near term actions that the City could consider in order to reduce the backlog.

The 2009 figures were carried forward and revised based on specific proposed investments. Estimates for a few specific programs were adjusted based on continuing work: (a) Convention Center, Transportation Infrastructure and Technology (Radio Communications) one-time backlog estimates were increased either due to additional needs identified or further deterioration due to declines in funding; (b) the one-time backlog estimate for Technology (Information Technology) was reduced due to increased efficiencies and completion of some critical projects; and (c) Convention Center deferred maintenance was included.

## **ANALYSIS**

Staff has updated the 2009 backlog estimates to reflect more recent work. A detailed breakdown of the estimates is included in the Attachment. As shown in the Attachment, the total one-time need is estimated at \$821 million (\$446 million in the General Fund), with an additional \$54 million needed annually (\$43 million in the General Fund) upon adoption of the proposed Budget.

It is important to note that for most programs, detailed analysis to identify unfunded needs was done in 2007 with only a minimal amount of staff time spent on the October 2008 update. Thus, many of the currently unfunded needs may actually be larger given that the one-time and ongoing needs have not been adequately addressed since 2007.

Based on these updates, the following table summarizes the anticipated state of the City's Deferred Maintenance and Infrastructure backlog upon adoption of the Proposed 2010-2011 Budget:

**Infrastructure Backlog based on Proposed 2010-2011 Budget**

<b>Program</b>	<b>One-Time Unfunded Need</b>	<b>Annual Ongoing Unfunded Need</b>
• Airport	None	None
• Building Facilities	\$19 million	\$4.4 million
• City Facilities Operated by Others	\$4.3 million	Unknown
• Convention Center and other Cultural Facilities	\$37.1 million	Unknown
• Fleet	\$2.3 million	\$1 million
• Parks, Pools and Open Space*	\$28.7 million	\$7 million
• Sanitary Sewer	\$229 million	Unknown
• Service Yards	None	Unknown
• Storm Sewer	\$2.9 million	Unknown
• Technology	\$69.4 million	\$7.5 million
• Transportation Infrastructure	\$394 million	\$31.8 million
• Water Pollution Control Plant	None	None
• Water Utility	None	None
<b>Total</b>	<b>\$820 million</b>	<b>\$53.7 million</b>

\* Does not include citywide or regional parks, underground infrastructure, or major park expansion projects

Staff has compiled the status of near term actions that the City has taken or could take to reduce the Deferred Maintenance and Infrastructure backlog. A discussion of potential other future opportunities is also provided below.

• **Airport**

The Airport Terminal Area Improvement Program (TAIP) is addressing the Airport's infrastructure needs and is funded by a combination of Federal grants, Passenger Facility Charges, Customer Facility Charges, General Airport Revenue bonds and Recovery Act funding.

• **Building Facilities**

Since most of the funding sources such as General Fund, Construction & Conveyance (C&C) taxes, Park Impact fees and General Obligation bond funds that have been used to address infrastructure needs in the past have recently experienced dramatic declines, funding for addressing the infrastructure backlog continues to be a challenge. One area of opportunity is the Recovery Act Energy Block Grant funding that is being proposed to retrofit existing mechanical and electrical systems and to conduct retro-commissioning to ensure that facilities are operating as efficiently as possible.

- **City Facilities Operated by Others**

While opportunities will likely be limited in the near term, the City can continue to look for public-private partnership opportunities to address this backlog. Various ideas, including a ticket surcharge and a bond issuance have been broached and will continue to be explored.

- **Convention Center and other Cultural Facilities**

The Redevelopment Agency is currently funding projects at the Civic Auditorium (\$11.1M). If the Convention Center renovation and expansion projects are financed through Transient Occupancy Tax and Redevelopment Agency bonds, the backlog at the Convention Center itself will be significantly reduced.

- **Fleet**

The City was not successful in securing any Recovery Act funding from the Department of Energy (DOE) for use towards introducing additional electric vehicles or vehicle conversions into the municipal fleet. However, the City did receive a Voluntary Low Emission Grant (VALE) from the Federal Aviation Administration (FAA) for vehicle replacements at San José Mineta Airport. A portion of the grant was applied to replace gas powered light utility trucks with 15 electric vehicles.

- **Parks, Pools and Open Space**

The proposed budget includes funding focusing on long term financial sustainability. All new project proposals fall into one of the following four categories: (1) trail development; (2) infrastructure backlog; (3) artificial turf sports fields; and (4) land banking for future park development. Focusing on these priorities moving forward will help build the foundation for a financially sustainable future. In addition, as part of last year's budget process, a team was established to focus on reducing the infrastructure backlog. This team has made significant progress over the beginning of Fiscal Year 2009-2010 by completing over 100 minor renovation projects and developing a prioritized list of future infrastructure projects. Now that the work is well underway to develop a list of infrastructure backlog needs, this team will work over the next fiscal year to develop costs which will allow for an estimate of the dollar amount associated with the infrastructure backlog.

- **Sanitary Sewer**

In order to better align the cost and impacts of new sewer connections, a sanitary sewer connection fee study has been initiated and is substantially complete. Based on recommendations received from the outreach efforts, fee or other financing proposals will be recalibrated or developed as future projects are aligned with the needs of the adopted Preferred Alternative of the Envision 2040 General Plan Update effort. In 2010 the final phase of the Capacity Master Plan will be completed, along with the initial pilot phase of the Condition Assessment Program. Together, the results of these two programs will be used to guide the development of the capacity and rehabilitation projects.

- **Service Yards**

At this time the Service Yards program does not have a significant infrastructure backlog. C&C funding will continue to fund any required infrastructure and maintenance projects.

- **Storm Sewer**

A storm sewer connection fee study is underway, however substantial adjustments are unlikely until a Storm Master Plan is developed to identify system deficiencies and capacity needs of new development. Capital budget proposals are currently being considered to initiate a Storm Sewer Master Plan, further Alviso Storm Improvements, and continued pump station rehabilitations.

- **Technology**

As the City continues to be faced with accelerating demands for information technology service delivery and increasing costs for IT infrastructure renewal, the single most significant issue facing the City is the identification of an ongoing source of funding. Staff has done some preliminary work on options which included establishment of a technology fund "seeded" by an annual allocation from operating and capital budgets; establishing a practice of funding technology infrastructure as a percentage of capital projects, much like public art funding is currently handled, and 100% recovery of IT staff costs through the indirect cost allocation plan.

During 2007-08, the Information Security Audit identified a number of areas that represent significant risks to the organization, noting that existing staffing levels and the lack of ongoing investment in both staff and technology provide for the adequate support of only 10% of our current environment. This is not sustainable, evidenced by the recommended information security staffing of 3.5 FTE compared to the current staffing level of 1 FTE. The audit further noted that the practice of funding and procuring technology based on departmental boundaries has resulted in duplicative services, which increase risk.

ITD completed work with an outside consultant that looked at how to optimize delivery of IT services in the city. The consultant's recommendations focused on three major deficiencies. The deficiencies identified were: 1) IT Governance, 2) Adequate on-going funding and 3) Approaching IT needs from a citywide perspective. In response to the consultant's recommendations, the City Manager has approved a Charter creating the Technology Leadership Council (TLC) and asked the TLC members to focus on addressing the City's highest priority IT needs. Depending upon the availability of funds, an annual allocation of money would be used to fund the "Technology Investment Fund", and those funds would be used to address the highest priority needs identified by the TLC.

Radio Communications – The City conducted a study and specification development process for the future 700 MHz trunked radio system. The one-time costs estimated to build this system are \$24M. The City is actively pursuing grant funding from Homeland Security to initiate the City-Wide Trunking Radio System project.

### • **Transportation Infrastructure**

Reduced investment in the repair, renovation and maintenance of the City's transportation infrastructure over the years has resulted in a continual degradation of these assets. Federal funds have provided some one-time assistance for pavement repair but will not stop the overall decline of this asset. The pavement budget is programmed to receive an estimated \$17.5 million in Federal and State funding for 2010-11, but this still leaves the pavement program with an estimated \$20 million shortfall next year.

The City is responsible for maintaining 2,365 miles of street pavement at an annual projected cost of approximately \$39 million. This level of funding would provide for 250 miles of maintenance per year on an eight to ten year maintenance cycle. Over many years, funding levels have been well short of the annual maintenance need. This has resulted in a backlog of deferred maintenance totaling \$249 million. Although the City has recently received one-time funding from federal and state sources, including over \$15 million from the American Recovery and Reinvestment Act (ARRA), the annual shortfall is expected to grow over the long term because overall funding levels have not kept pace with annual maintenance needs. In addition, there is a proposed reduction in pavement funding of \$2.2 million in General Fund to address the City's 2010-11 budget deficit. Unless future funding sources are made available, the backlog of deferred pavement maintenance will continue to grow and the overall condition of the network will continue to deteriorate. The current Pavement Condition Index (PCI) for all San Jose streets is 64, the lowest of all cities in Santa Clara County. By the year 2020, the PCI is projected to deteriorate to 45, with 49% of all streets, or over 1,100 miles, being in poor condition and in need of more expensive rehabilitation treatments at an overall projected cost of between \$750 million and \$1 billion, as compared to the current projected maintenance backlog cost of \$249 million.

To help address declining resources for the maintenance street landscapes, DOT has converted nearly 40 acres of landscapes from higher level designs to very basic designs that require less ongoing maintenance and water consumption. At City Council direction, staff is pursuing alternate funding mechanisms for landscape maintenance in those areas where it remains desirable to retain higher level designs and community support appears to exist to pay for the added cost. If established, a special financing district would save General Fund dollars and ensure that street landscapes are maintained to the standards desired by the community. As part of this strategy, DOT and DPW have contacted many property owners directly and through community meetings in targeted areas of the City to determine their interest in establishing special districts for landscape maintenance. The community feedback to date has been mixed in terms of their desire for higher level landscapes and their willingness to pay the incremental cost difference. Specifically, one area of the City is proceeding towards special district formation (including a mail ballot vote), one area has declined to proceed further, and the remaining areas under consideration this year are continuing the feasibility and interest in the process. Initially, staff identified eight areas where a special district would be appropriate and, through community meetings, several additional areas have been added to the list. The pursuit and exploration of special districts will continue into 2010-11.

Work is also being done to explore funding mechanisms to support tree planting and maintenance throughout the City. The essential building block for establishing a property-based funding source for street tree care is a street tree inventory. Over 40% of this inventory work on the City's approximate 243,000 street trees will be completed by the end of 2009-2010, and will continue in the next fiscal year.

In December 2008, the City Council revised San Jose's public streetlight policy (Policy 4-2) to advance several of its Green Vision goals. The new policy allows San Jose to make use of new emerging technologies to reduce the energy consumption and extend the life of its 62,000 streetlights, improve the quality of light on the City's streets, protect the night sky, and reduce if not eliminate hazardous waste associated with the City's streetlights. Staff is currently developing a lighting master plan for Council's review that addresses implementation of the policy. The plan will include an adaptive lighting design guide, outlining where, when, and by what degree the City's streetlights may be dimmed in the late evening when traffic is minimal. It will also outline how an energy cap on the City's streetlights might be imposed. Staff has installed approximately 270 of these next generation streetlights since the policy was adopted and plans to install another 2,650 this year with federal stimulus funding the City has secured. These initial deployments, along with a streetlight demonstration conducted in early March, have helped staff deepen its understanding of this new technology and develop appropriate specifications and design guidelines for its use. In the fall, in concert with the Streetlight Master Plan, staff intends to bring to Council options for funding a multi-year conversion of the City's remaining streetlights.

#### • **Water Pollution Control Plant**

Over the past three years the Plant has significantly increased its capital budget to align with the infrastructure needs. This increase and investment was possible due to aggressive rate increases achieved over the last three years. The current 5-year CIP of \$250 million averages to about \$50/year in infrastructure reinvestment. This level of re-investment is sufficient to address the rehabilitation and re-building of the Plant to keep up with the deteriorating infrastructure. It is anticipated that the Plant infrastructure needs will continue to need this level of re-investment over the next 10 to 15 years. With the adoption of the proposed budget and rate increase, the Plant does not have any unfunded infrastructure needs in the next 5-years. Future needs could be addressed, provided the funding levels remain at the current rate with moderate annual rate increase to account for inflation.

Over the past several fiscal years, the Plant has increased its maintenance budget to include programs such as the Asset Management and Preventative Maintenance teams. Although only approximately half-way through their five year plan, these programs have shown progress in significantly reducing deferred maintenance. This is best demonstrated by the decrease in corrective action efforts and the increase in planned/preventive maintenance. While these programs are still evolving, it is reasonable to expect that within the next two fiscal years the Plant will be able to avoid most, if not all, corrective maintenance; provided that the capital investment in rehabilitation and replacing fixed assets continues to be sustained at current levels.

- **Water Utility System**

A Reserve for System Rehabilitation/Replacement Projects continues accumulating funds for future System needs. Currently the assets are currently well maintained in good to excellent condition.

### **COORDINATION**

This memorandum was coordinated with the following Departments: Airport, Environmental Services, General Services, Information Technology, Parks, Recreation & Neighborhood Services, Public Works, and Transportation; and the Redevelopment Agency.

### **CEQA**

Not a project

/s/

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For questions please contact TIMM BORDEN, Deputy Director at (408) 535-8499.

Attachment